

WHAT IS CLAIMED IS:

5 1. A flow cytometer, comprising:
 a sheath flow cell for forming a sample solution flow by
surrounding sample solution containing particles with sheath liquid;
 a light source for radiating light to the sample solution flow;
 a detecting part for detecting optical information from particles
contained in the sample solution flow and converting it to electric signals; and
 a signal processing part for extracting fluctuation signals from
the electric signals which the detecting part outputs.

10 2. The flow cytometer according to Claim 1, wherein the electric
signals which the detecting part outputs are corrected on the basis of the
fluctuation signals.

15 3. The flow cytometer according to Claim 1, wherein the signal
processing part eliminates signal level of the fluctuation signals from the
signal level of the electric signals which the detecting part outputs, and then
outputs.

 4. The flow cytometer according to Claim 1, further comprising a
syringe for delivering the sheath liquid to the sheath flow cell, wherein the
syringe is driven by a stepping motor.

20 5. The flow cytometer according to Claim 1, wherein the optical
information is scattered light.

 6. The flow cytometer according to Claim 1, wherein the optical
information is fluorescence.

25 7. The flow cytometer according to Claim 1, further comprising an
analyzing part, wherein the analyzing part extracts parameters showing
characteristics of particles from the signals inputted by the signal processing
part, and produces a scattergram by combining a plurality of parameters.

8. The flow cytometer according to Claim 1, wherein the sample solution is prepared by using urine.

9. The flow cytometer according to Claim 1, wherein the particle of the detecting subject is bacteria.

5 10. A flow cytometer, comprising:
a sheath flow cell for forming a sample solution flow by surrounding a sample solution containing particles with sheath liquid;
a light source for radiating light to the sample solution flow;
a detecting part for detecting optical information from particles contained in the sample solution flow and converting the information to electric signals; and
10 a signal processing part for eliminating fluctuation signals from the electric signals which the detecting part outputs.

11. The flow cytometer according to Claim 10, further comprising a syringe for delivering the sheath liquid to the sheath flow cell, wherein the syringe is driven by a stepping motor.
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12. The flow cytometer according to Claim 10, wherein the optical information is scattered light.

13. The flow cytometer according to Claim 10, wherein the optical information is fluorescence.
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14. The flow cytometer according to Claim 10, wherein the analyzing part extracts parameters showing characteristics of particles from the signals inputted by the signal processing part, and produces a scattergram by combining a plurality of parameters.

25 15. The flow cytometer according to Claim 10, wherein the sample solution is prepared by using urine.

16. The flow cytometer according to Claim 10, wherein the particle of the detecting subject is bacteria.

17. A flow cytometer, comprising:

a sheath flow cell for forming a sample solution flow by surrounding a sample solution containing particle with sheath liquid;
a light source for radiating light to the sample solution flow;
a detecting part for detecting optical information from particles contained in the sample solution flow and converting the information to electric signals;

a signal processing part for processing electric signals which the detecting part output, and input the signals into an analyzing part; and
an analyzing part for analyzing characteristics of particles from electric signals which the signal processing part outputs;

wherein the signal processing part is provided with a fluctuation judging part for judging fluctuation of signals from the time variation of a signal level received from the detecting part, a fluctuation signal producing part for producing a fluctuation signal based on the judging result of the fluctuation judging part, and a subtracting part for subtracting a fluctuation signal from the signal received from the detecting part, and inputs the subtracted signal into the analyzing part.

18. The flow cytometer according to Claim 17, wherein the subtracting part is provided with a correcting part for outputting the subtraction result as 0 when the result is negative.

19. The flow cytometer according to Claim 17, wherein the fluctuation judging part judges to be fluctuation when signal level variation per unit time is smaller than the predetermined value.

20. The flow cytometer according to Claim 17, wherein the fluctuation signal producing part sets the output signal level of the detecting

part at the time as a signal level of the fluctuation signal when the subtraction result of the subtracting part becomes negative.

21. The flow cytometer according to Claim 17, wherein the signal processing part is provided with a low pass filter for reducing a high frequency noise signal at the previous stage.

22. The flow cytometer according to Claim 19, wherein the fluctuation signal producing part produces a fluctuation signal by averaging a plurality of signal levels when the fluctuation judging part consecutively judges that variation per unit time is smaller than the predetermined value.

23. The flow cytometer according to Claim 17, further comprising a syringe for delivering the sheath liquid to the sheath flow cell, wherein the syringe is driven by a stepping motor.

24. The flow cytometer according to Claim 17, wherein the optical information is scattered light.

25. The flow cytometer according to Claim 17, wherein the optical information is fluorescence.

26. The flow cytometer according to Claim 17, wherein the analyzing part extracts parameters showing characteristics of particles from the signal inputted by the signal processing part, and produces a scattergram, by combining a plurality of parameters.

27. The flow cytometer according to Claim 17, wherein the sample solution is prepared by using urine.

28. The flow cytometer according to Claim 17, wherein the particle of the detecting subject is bacteria.